ATTACHMENT M-2 (PECO)

Determination of Capacity Peak Load Contributions, Network Service Peak Load and Hourly Load Obligations

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PURPOSE

This document outlines the process by which PECO determines Capacity Peak Load Contributions, or "PLCs", Network Service Peak Loads, or "NSPLs", and Final Hourly Load Obligations for customers and subsequently Load Serving Entities ("LSEs") serving load within the PECO Electric Distribution Company ("EDC") Zone (the "PECO Zone"), a zone located entirely within the PJM Regional Transmission Organization (RTO) footprint.

Attachment M-2 does not amend or replace any existing contracts or agreements between PECO and any LSE.

Capitalized terms used in the Attachment M-2 have the meaning given them under the provisions of the PJM Open Access Transmission Tariff unless otherwise defined herein.

CAPACITY (PLC) AND TRANSMISSION (NSPL)

OVERVIEW

On an annual basis, PECO stratifies each of its customers based on the customer's rate class and an analysis of usage and demand over the prior year. At the same time, PECO calculates seasonal scale factors that relate customer's actual historical energy usage to projected usage for that year based on the load profile as well as on actual weather data.

Once complete, PECO then calculates PLCs and NSPLs for service locations within the PECO Zone. PECO then scales these preliminary values up or down such that:

- **PLCs** – The sum of all individual customer PLCs equals the normalized peak load target allocated to the PECO zone as determined by PJM.

- **NSPLs** – The sum of all individual customer NSPLs equals PECO's metered zonal load at the time of the zone's highest transmission peak value (as determined by PJM).

PECO then aggregates the resulting PLC and NSPL values by LSE and transmits to PJM. PECO subsequently provides PJM with updated aggregations on a daily basis.

NSPLs are scaled internally to meet the PECO Zone target.

ANNUAL CALCULATION OF CAPACITY PEAK LOAD CONTRIBUTIONS (PLCS)

PECO calculates individual preliminary PLCs based on normal peak load conditions and adjusts all values to include transmission and distribution losses. The PLCs calculated are effective from June 1st of the following calendar year through May 31st of the subsequent calendar year, in alignment with PJM planning periods.

For the purposes of these procedures, PECO considers the first day of summer to be June 1st and the final day to be September 30th.

A. FOR WHOLESALE INTERVAL-SETTLED LOCATIONS:

1. PECO gathers the actual hourly meter readings at hour-ending normal PJM peak time ET for each of the five days coincident with the highest PJM system peak hours, as determined by PJM. These loads include an "add-back" of energy curtailed as a result of load management initiatives or restrictions as identified by PJM.

2. PECO calculates a weather-normalized peak load for each of these five hours, taking into account the actual reading, actual versus normal peak weather, customer rate class, and losses.

3. To calculate the preliminary PLC, PECO averages the five resulting load values.

B. FOR WHOLESALE MONTHLY-SETLLED LOCATIONS WITH DEMAND METERS:

1. Using industry-standard load profiling techniques, PECO creates a load profile for each of the five days coincident with the highest PJM system peak days, as determined by PJM.

2. PECO calculates an average peak weather correction factor based on the ratio of the profiled peak load versus the expected profile peak at normal peak weather and time conditions for each of the five PJM coincident peak days.

3. PECO determines the actual average non-coincident on-peak summer demand for the premise.

4. To calculate the preliminary PLC, PECO applies the average weather correction factor and losses to the average non-coincident on-peak summer demand.

C. FOR RESIDENTIAL CUSTOMERS WITHOUT DEMAND METERS, PECO calculates the weather-normalized load with losses at hour-ending normal peak time based on the summer weekday load profile and summer scale factor mentioned in Part 1 for the associated customer profile and rate class. This becomes the preliminary PLC.

D. FOR UNMETERED LOCATIONS IDENTIFIED VIA CUSTOMER RATE CLASS AS CONSTANT LOAD (such as traffic lighting):

>   1. PECO calculates hourly load for each of the four summer months based on the billed usage and billed number of hours for each month.

>   2. To calculate the preliminary PLC, PECO averages the resulting hourly and applies losses to the resulting average.

E. FOR UNMETERED LOCATIONS IDENTIFIED AS LIGHTING (excluding constant load lighting), PECO sets all PLC values to zero.

F. NEW LOCATIONS WHERE INDIVIDUAL DATA IS NOT YET AVAILABLE are assigned a PLC based on the average default value calculated for the associated customer's rate class and load profile.

ANNUAL CALCULATION OF NETWORK SERVICE PEAK LOAD

PECO uses the PLC calculations above as a direct input to NSPL calculations. The NSPLs calculated will be effective from January 1st through December 31st of the following year.

Because the sum of all NSPLs are equal to the actual metered zonal load, PECO first adjusts the PLCs calculated above for all interval-settled locations so as to exclude energy curtailed as a result of load management initiatives or restrictions based on "add-back" information provided by PJM. (All other PLCs remain as calculated per above.). These values are the initial NSPLs.

Once these adjustments are complete, PECO applies a scaling factor to all adjusted and initial NSPL values based on the zonal transmission target determined by PJM, which represents PECO's metered zonal load at the time of the PECO zone's highest transmission peak value. The result is the individual NSPLs for each specific location which, when totaled, will sum to PECO's annual zonal target.

DAILY UPDATES TO PLC AND NSPL

Because the LSE responsible for a customer's Capacity Peak Load Contribution and Network Service Peak Load is subject to change at points throughout the effective period, PECO aggregates PLC and NSPL values by LSEs serving load within the zone on a daily basis and transmits those updates to PJM in accordance with PJM procedural requirements and capacity market schedules. NSPLs are scaled to the PECO zone NSPL target before sending to PJM.

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DETERMINATION OF HOURLY LOAD OBLIGATIONS

OVERVIEW

PECO settles hourly load obligations with each LSE and PJM via a two-step process.

Settlement A – PECO determines the estimated "day after" (delivery day) hourly load responsibility by recreating the load characteristics of the delivery day in question using a combination of available known, preliminary, and historically-based information. PECO then submits the load responsibility for all LSEs serving load on the settled day(s) to PJM in accordance with PJM procedural requirements and energy market schedules.

Settlement B – PECO determines the final hourly load responsibility approximately 60 days after an energy delivery month by reconciling actual individual customer meter readings and applicable load profile data with the Settlement A data for that month. PECO then calculates and submits the energy variances from Settlement A hourly scheduling for all LSEs to PJM in accordance with PJM procedural requirements and energy market schedules.

All hourly load obligations are adjusted for transmission and distribution losses.

SETTLEMENT A (ESTIMATED "DAY AFTER" HOURLY LOAD OBLIGATIONS)

FOR INTERVAL WHOLESALE-SETTLED CUSTOMERS:

1. A retail LSE (Electric Generation Supplier) either calculates and provides the estimated "day after" hourly load responsibility directly to PECO OR otherwise accepts the day-after load responsibility (including losses) estimated by PECO.

2. PECO calculates the estimated load responsibility for each individual customer based on prior energy delivery days of similar day-type and similar weather.

FOR ALL OTHER CUSTOMERS:

1. PECO aggregates customers by LSE and assigned load profiles respectively.

2. PECO calculates the estimated hourly load responsibility based on the customer's assigned load profile and the scaling factor initially mentioned in Part I, Section 1 above.

    a. PECO assigns new customers the default scale factors for their rate class and assigned load profile.

b. The load profiles used by PECO for this purpose are split into various seasons and day-types.

3. PECO adjusts all calculations for losses and then aggregates the resulting estimated hourly load obligations by LSE and assigned load profile respectively.

Following the above, for <u>all</u> customers, PECO allocates any existing Unaccounted-For Energy to all customers by load share ratio of monthly settled load and adds this to the estimated hourly load responsibilities.

Finally, PECO aggregates the hourly energy obligations by LSE and subsequently by PJM Contract Number and reports the resulting energy schedules to PJM.

SETTLEMENT B ("60 DAY SETTLEMENT—FINAL" HOURLY LOAD OBLIGATIONS)

For interval-settled customers, PECO uses the customer's actual interval data to determine the associated hourly load obligations, and then adjusts for losses.

For monthly-settled customers, PECO converts the monthly aggregate consumption into hourly consumption values for the related billing periods. PECO accomplishes this by generating an hourly load shape for the periods based directly on the customer's assigned load shape and weather, then scaling that load shape to tie to the customer's actual usage, calculating the associated hourly load obligation values, and adjusting those values for losses.

For <u>all</u> customers, PECO then calculates a "bottom-up" load shape for the energy delivery month being reconciled and compares that shape with a load shape comprised of actual metered PECO zone load. PECO considers any resulting variance as being Unaccounted-For Energy for that hour and allocates it to hourly load obligations as appropriate.

PECO then calculates the difference between the "day after" estimated load obligations previously determined in Settlement A and the final hourly load obligations for Settlement B, aggregating the resulting variances by LSE and subsequently by PJM Contract Number. PECO then reports the resulting energy variances to PJM. PJM incorporates the variances as adjustments within its market settlement processes with LSEs.

If adjustments are made to the Hourly Load of a LSE in the PECO Zone after this load reconciliation, PECO may calculate the financial value of the adjustment and report that value to PJM. PECO will also allocate the equal and opposite financial value to all LSEs in the PECO Zone, on a load-ratio share basis, and report the adjustments to PJM. PJM will include any adjustments in the next monthly billing statement issued by PJM to the affected LSE(s).